

Date / /

Ex09 Present value of ordinary annuity

PMT = GH¢ 4000 , r = 14% , n = 4 years

$$PV_a = \frac{PMT}{r} \left[1 - \frac{1}{(1+r)^n} \right]$$

$$\therefore PV_a = \frac{4000}{0.14} \left[1 - \frac{1}{(1+0.14)^4} \right]$$

$$PV_a = GH¢ 11,654.85$$

Ex10 Present value of annuity Due.

PMT = GH¢ 5000 , r = 10% n = 10 years

$$PV_{ad} = \frac{PMT}{r} \left[1 - \frac{1}{(1+r)^n} \right] (1+r)$$

$$PV_{ad} = \frac{5000}{0.10} \left[1 - \frac{1}{(1+0.10)^{10}} \right] (1+0.10)$$

$$PV_{ad} = 33795.12$$

EXO II

perpetuity

PMT = GHc 8000; r = 20% year = Forever

$$PV = \frac{PMT}{r}$$

$$PV = \frac{8000}{0.2} = GHc 40000$$